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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,224	07/22/2003	Yoshinori Tanaka	1324.68214	6958

7590 04/14/2005  
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EXAMINER

SCHECHTER, ANDREW M

ART UNIT PAPER NUMBER

2871

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/624,224

**Applicant(s)**

TANAKA ET AL.

**Examiner**

Andrew Schechter

**Art Unit**

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-3 and 5 is/are allowed.  
6) ☒ Claim(s) 4 and 10 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/22/03.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. Figures 8-10 should be designated by a legend such as --Prior Art-- or --Related Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Substrate for liquid crystal display having multiple terminals connected to semiconductor chip, and liquid crystal display having the same".

### ***Claim Objections***

3. Claim 4 is objected to because of the following informalities: "interest" in line 2 should be "intersect". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Yoshino*, Japanese Patent Document No. 11-202353 in view of *Takizawa et al.*, U.S. Patent No. 5,742,074.

[A machine-translation of *Yoshino* is enclosed.]

*Yoshino* discloses a substrate for a liquid crystal display, comprising first bus lines [40] formed on a base substrate, a terminal section [41] formed of the same material as that of the first bus lines, electrically connected to each of the first bus lines, and connected to one terminal of a semiconductor chip [3] mounted on a surface of the base substrate; and another terminal section [51] which is formed in the region [31] where the semiconductor chip is mounted and connected to each of the terminal sections and which is put in contact with a probe pin [6] for inspection.

*Yoshino* does not necessarily disclose second bus lines formed on the base substrate intersecting the first bus lines with an insulation film interposed therebetween. *Takizawa* discloses an analogous substrate for an LCD, having first and second bus lines [14 and 16] on the substrate, with an insulation film [48] interposed therebetween. It would have been obvious to one of ordinary skill in the art at the time of the invention

to have the second bus lines, motivated by the desire to have an active matrix TFT substrate, with a higher display quality than a typical passive matrix substrate with only a single set of bus lines. Claim 4 is therefore unpatentable.

*Yoshino* discloses first substrate with semiconductor chip, second substrate, and liquid crystal sealed between them, so claim 10 is also unpatentable.

### ***Allowable Subject Matter***

6. Claims 1-3 and 5 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art [*Yoshino*, for example] discloses first bus lines and second bus lines, and first terminal sections as recited. It also discloses [see Fig. 9 of *Yoshino*, for example] second terminal sections connected to another terminal of the semiconductor chip, and a third terminal section electrically connected to the second terminal section, provided at an end of the substrate, to which signals are input from the outside. The prior art also teaches [*Lee et al.*, U.S. Patent No. 6,587,160, for example] a connection wiring, and common wiring provided in a location that is removed during chamfering. The prior art does not disclose or fairly suggest that the second terminal section is formed of the same material as that of the other of the first and second bus lines. The examiner understands "same material" to refer to being formed of a material deposited in a layer which is then patterned to make both the bus lines and the second terminal; it does not mean merely that both are made of chromium, say. [If the applicants disagree

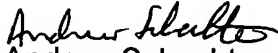
with this understanding, they should bring it to the attention of the examiner immediately – the prior art does teach using a single metal (or ITO) to form these elements.] Claim 1 is therefore allowed, as are dependent claims 2, 3, and 5.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Andrew Schechter  
Patent Examiner  
Technology Center 2800  
8 April 2005